



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,070	01/20/2004	Kenji Sunami	2018-832	7168

23117 7590 06/29/2006

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

NORTON, JENNIFER L

ART UNIT PAPER NUMBER

2121

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/759,070

Applicant(s)

SUNAMI, KENJI

Examiner

Jennifer L. Norton

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/20/04 and 5/27/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-8 are pending.

Specification

2. The disclosure is objected to because of the following informalities:

The abbreviation NG (pg. 6, par. [0062]) is not defined.

Appropriate correction is required.

Drawings

3. The drawings are objected to because reference character 134, Fig. 6 is indicated as S133 in the disclosure (pg. 6, [0057]). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If

the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,980,081 (hereinafter Watari).

5. As per claim 1, Watari discloses an electronic control unit comprising a first computer and a second computer and outputting a control signal for an object of control based on a predetermined detection signal, the first computer (col. 3, lines 41-44 and Fig. 1, element 20) comprising:

a determination routine unit (col. 2, lines 43-46, i.e. processing unit) operable to, in order to check an abnormal state of a logic function for operating the control signal based on the predetermined detection signal (col. 2, lines 2-6), operate a dummy control signal by using dummy data stored in advance (col. 1, lines 61-62 and col. 2, lines 6-10) in accordance with the logic function (col. 1, lines 62-64) and to determine whether or not a relationship between the dummy control signal and an

expected value of the dummy control signal, which expected value is stored with respect to the dummy data in advance, is normal (col. 2, lines 43-46); and

a transmission unit operable to transmit the dummy control signal and the expected value thereof that are used in a determination routine by the determination routine unit to the second computer (It is inherent to peer/peer communication that the device will have a component to transfer information.);

the second computer (col. 3, lines 51-53 and Fig. 1, element 30) comprising:

a receiving unit operable to receive the dummy control signal and the expected value thereof (col. 4, lines 24-29 and col. 5, lines 57-62); It is inherent to peer/peer communication that the device will have a component to received information.); and

a monitor routine unit operable to compare the dummy control signal and the expected value thereof received by the receiving unit so as to perform a calculation routine for calculating monitor data for monitoring whether or not a result of the determination routine by the determination routine unit is correct (col. 6, lines 16-28 and col. 7, lines 1-10);

the electronic control unit further comprising:

a fail-safe routine unit operable to perform a fail-safe routine based on the determination result by the determination routine unit and the monitor data by the monitor routine unit (col. 8, lines 3-6 and lines 57-65) .

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-3 rejected under 35 U.S.C. 103(a) as being unpatentable over Watari in view of In re Harza 274 F. 2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) in view of U.S. Patent No. 4,748,567 (hereinafter Sumizawa).

8. As per claim 2, Watari teaches the determination routine unit determines whether or not a relationship in accordance with logic functions is normal (col. 2, lines 43-46).

Watari does not expressly teach the logic function includes a first logic function for operating the control signal based on the predetermined detection signal and a second logic function, for operating a simplified control signal based on the predetermined detection signal.

Sumizawa teaches to a first logic function for operating the control signal based on the predetermined detection signal and a second logic function, for operating a simplified control signal based on the predetermined detection signal (col. 4, lines 33-60).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to include a first logic function for operating the control signal based on the predetermined detection signal and a second logic function, for operating a simplified control signal based on the predetermined detection signal to enable the controlled means to securely keep operating safely with defective components (col. 12, lines 30-46).

9. As per claim 3, Watari teaches as set forth above wherein the determination routine unit inputs the dummy data to the second logic function to operate a dummy simplified control signal and determines whether or not a relationship between the dummy simplified control signal and an expected value thereof is normal (col. 2, lines 43-46).

10. Claims 4-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to monitoring computer functionality.

U.S. Patent 6,243,629 discloses a fail-safe function for monitoring computer function.

U.S. Patent No. 6,990,404 discloses a control CPU and monitor CPU for monitoring the control CPU.

U.S. Patent No. 6,879,891 discloses a method and an arrangement for monitoring a computing element.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer L. Norton whose telephone number is 571-272-3694. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anthony Knight
Supervisory Patent Examiner
Art Unit 2121

A handwritten signature in black ink, appearing to read "L. P. Picard", with a stylized flourish at the end.

**LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**